RM050A-R3
RM051A-R3

BLACK BOX®

Ultra Wallmount Racks User's Manual

Mount heavy equipment in tight spaces.

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Preface

This manual is provided to prevent service personnel from committing an act that results in the risk of fire, electric shock, or injury to persons. Only trained service personnel should receive, unpack, and assemble the Ultra Wallmount Rack. In addition, only trained service personnel should install equipment in the rack.

Safety Symbols Used in This Manual

This manual provides general safety guidelines to be observed during installation, operation, and maintenance of the Ultra Wallmount Rack.

WARNING: Failure to follow directions in the warning could result in injury to persons or loss of life.

CAUTION: Failure to follow directions in the caution could result in damage to equipment or storage data.

Safety Considerations

WARNING: Improper handling and use of the Ultra Wallmount Rack could result in equipment damage, serious injury, or possible death.

Only trained service personnel should be used to remove the rack from the carton. Also be sure you have a sufficient number of service personnel. Do not attempt to move racks by yourself.

Only UL® Listed ITE units should be installed in the Ultra Wallmount Rack.

Be sure to read and follow all individual manufacturer equipment manuals for safety and installation instructions.

Proper spacing is required when installing electrical equipment to avoid electrical shock.

Maintain minimum spacing between the accessories and components and the Ultra Wallmount Rack for safe operation of the equipment when installed in accordance with the National Electric Code ANSI/NFPA 70-1999.

The ambient temperature operating range for the Ultra Wallmount Rack and accessories is +50 to +95° F (+10 to +35° C). The non-operating temperature is -4 to +140° F (-20 to +60° C).

1. Specifications

1.1 Size

Table 1-1 lists specifications for the rack shown in Figures 1-1 through 1-10.

Table 1-1. Rack size specifications.

Part Number	#of RUs	Height	Width	Depth
RM050A-R3	11	23.57" (59.86 cm)	19.8" (50.3 cm)	25" (63.5 cm)
RM051A-R3	19	35.57" (90.34 cm)	19.8" (50.3 cm)	25" (63.5 cm)

1.2 General

Cable Openings (Bottom Plate) — 3" diameter

Certifications: UL® certified to UL2416

Construction:
Baseplate: 14-gauge steel;
Sides: 11-gauge steel;
Rails: 11-gauge steel

Finish: Black powder coat

Grounding: Ground studs located on rear and middle sections

Mounting Hardware — ¼" diameter

Rail Type: 12-24 tapped

Temperature Tolerance —
Operating: +50 to +95° F (+10 to +35° C);
Non-operating: -4 to +140° F (-20 to +60° C)

Weight Capacity: 150 lb. (68 kg)

1.3 RM050A-R3 Drawings

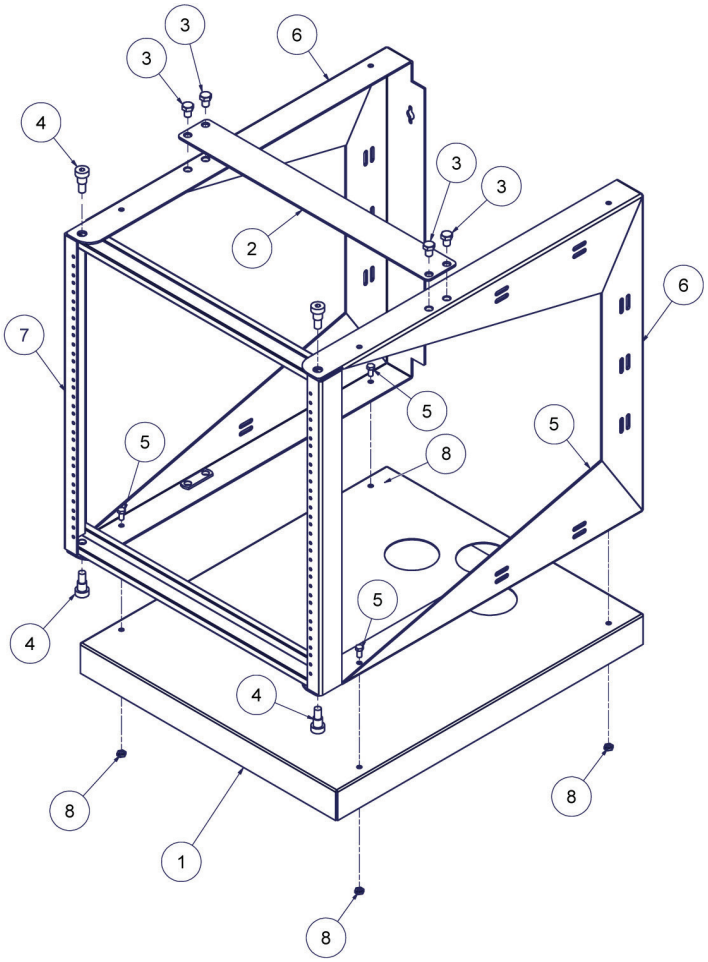

Figure 1-1. RM050A-R3.

Table 1-2. RM050A-R3 components.

Number*	Quantity	Description
1	1	Swing rack base plate
2	1	Top/bottom brace
3	4	Bolt, ⅜"-16 x ½"hex head, gr 2, steel, black
4	4	Socket head shoulder set screw
5	4	¼"-20 x ½"L hex head screw
6	2	21.258"H x 25"D swing rack side weldment
7	1	21"H reinforced swing frame weldment
8	4	Nut, ¼-20, steel, grade 2, zinc plated

**NOTE: The numbered components in Table 1-2 refer to Figure 1-1.*

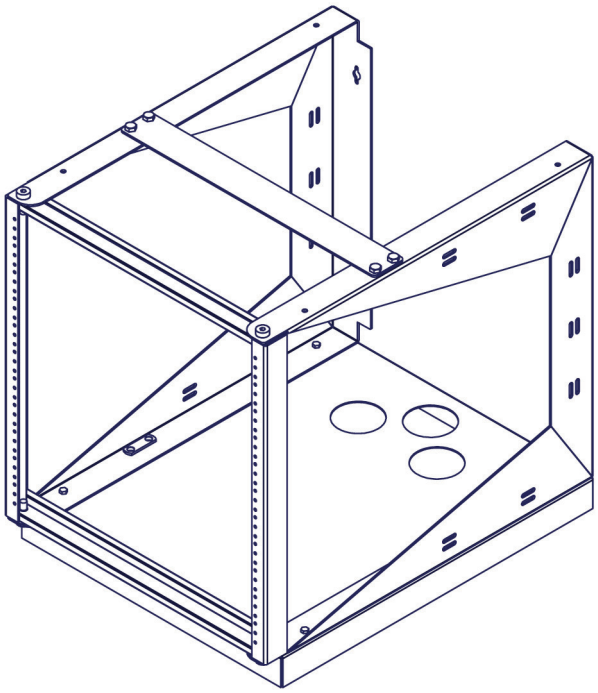

Figure 1-2. RM050A-R3 assembled view.

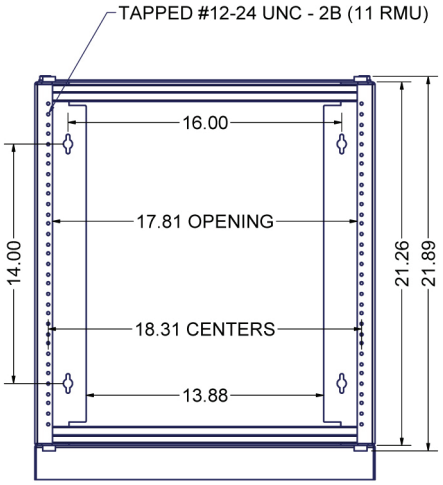

Figure 1-3. RM050A-R3 front view.

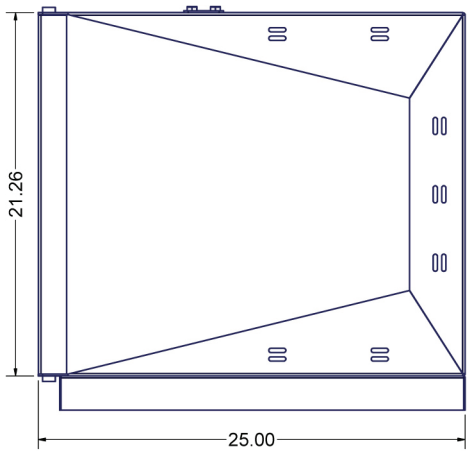

Figure 1-4. RM050A-R3 right side view.

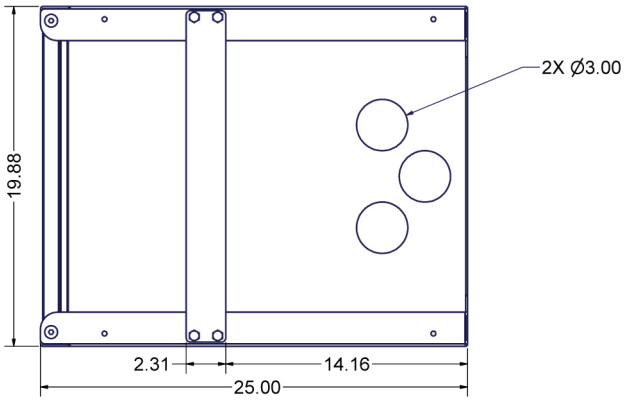

Figure 1-5. RM050A-R3 top view.

1.4 RM051A-R2 Drawings

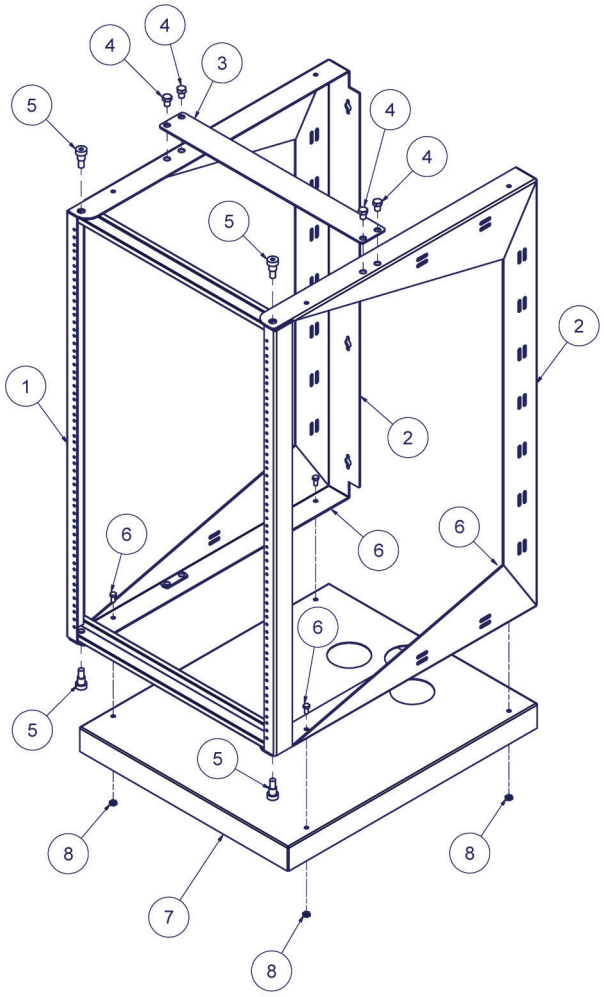

Figure 1-6. RM051A-R3.

Table 1-3. RM051A-R3 components.

Number*	Quantity	Description
1	1	35"H reinforced swing frame weldment
2	2	32.258"H x 25"D swing rack side weldment
3	1	Top/bottom brace
4	4	Bolt, ⅜"-16 x ½" hex head, gr 2, steel, black
5	4	Socket head shoulder set screw
6	4	¼"-20 x ½"L hex head screw
7	1	Swing rack base plate
8	4	Nut, ¼-20, steel, grade 2, zinc plated

**NOTE: The numbered components described in Table 1-3 refer to Figure 1-6.*

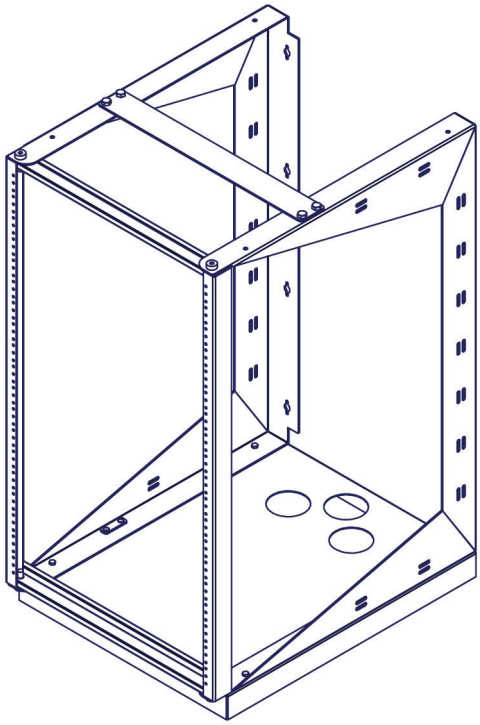

Figure 1-7. RM051A-R3 assembled view.

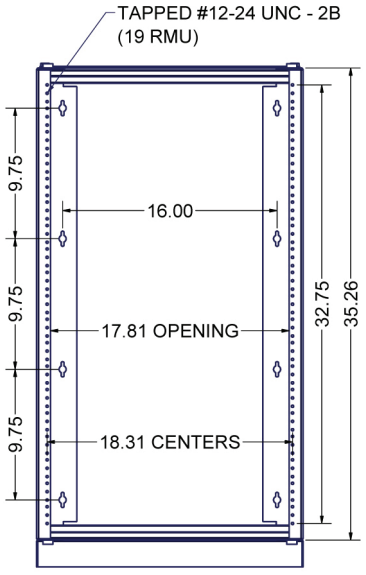

Figure 1-8. RM051A-R3 front view.

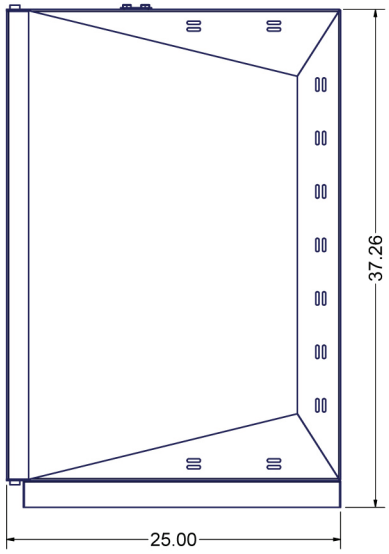

Figure 1-9. RM051A-R3 right side view.

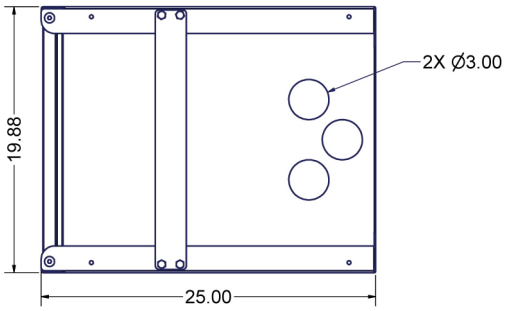

Figure 1-10. RM051A-R3 top view.

2. Overview

2.1 Introduction

Ultra Wallmount Racks are designed to securely hold 19" rackmount equipment, networking equipment, phone equipment, etc. in tight spaces or closets.

2.2 Features

- 25" depth provides plenty of rooom to open and close the rack, even when fully loaded with patch panels, hubs, or routers.
- Reinforcement base plate.
- Welded steel frame.
- Can be reversed to open left or right.

2.3 What's Included

Your package should include the following items. If anything is missing or damaged, please contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- Swing rack base plate
- Top/bottom brace
- (4) ⅜"-16 x ½" hex head bolts, black
- (4) socket head shoulder set screws
- (4) ¼"-20" x ½" hex head screws
- (4) ¼"-20" keps nuts with external tooth lock washer
- (2) swing rack sides
- (1) swing frame
- (30) 12-24 mounting screws
- Mounting hardware for wood studded wall only, including (4) ⅜" x 2" lag bolts and (4) flat washers
- Bonding and grounding system with (1) ground jumper

3. Mounting Instructions

3.1 Receiving, Unpacking, and Removing the Ultra Wallmount Rack from the Carton

Inspect for damage and report damage if there is damage before receiving. Refer to Section 2.3 for what's included in the package.

Unpack the rack by carefully removing the corrugated carton and corners. Avoid damaging the enclosure when removing packaging.

WARNING: Only trained service personnel should be used to remove the rack from the carton. Also be sure you have a sufficient number of service personnel. Do not attempt to move racks by yourself.

WARNING: Be careful when moving racks before installation. Sudden stops and starts, excessive force, obstructed routes, and uneven floor surfaces may cause the rack to topple over.

3.2 Wood Studded Wall

Once the location on the wall has been determined, inspect the wall surface. The wall must be flat and square in the horizontal and vertical plane to ensure the Ultra Wallmount Rack closes correctly. If the wall is not flat and square, you might need to use shims.

Wood studded wall mounting instructions apply to a 2" x 4" wood stud wall with ¾" plywood.

Once you locate the lag bolts, you can mount the back section to the wall and secure it with the ⅜"-2" lag bolts and washers.

WARNING: Improper handling and use of the Ultra Wallmount Rack could result in equipment damage, serious injury, or possible death.

3.3 Masonry Wall Surface

For a masonry wall surface, the installer must provide the appropriate hardware.

3.4 Loading Equipment

WARNING: Only install equipment after the Ultra Wallmount Rack has been properly secured and mounted to the wall.

Maximum Load Capacity

The rated or maximum load capacity for the RM050A-R3 is 75 pounds, and the maximum load capacity for the RM051A-R3 is 100 pounds. To maintain uniform distribution of the mechanical load in the rack, load the heaviest equipment first at the bottom and the lighter units at the top.

3.5 Power

When using power distribution units (PDUs), each PDU should be connected to a committed branch circuit that is rated for the continuous load of all the connected equipment.

When not using a PDU, each piece of equipment should be connected to a dedicated branch circuit.

3.6 Protective Grounding

A main protective grounding stud and grounding studs are provided along with grounding jumper wires that electrically bond the swing frame doors to one of the swing rack sides.

WARNING: To avoid injury to persons or loss of life, ground each enclosure individually to the dedicated branch circuit earthing ground.

3.6.1 Connecting Main Protective Grounding Stud to the Dedicated Branch Circuit Earthing Ground Conductor

Connect the dedicated branch circuit ground conductor to the main protective grounding stud located at the rear of one of the swing rack sides.

3.6.2 Connecting Main Protective Grounding Stud to the Protective Bonding Conductors

Connect the swing frame to the grounding stud located at the front of one swing rack side using a listed ring or closed-loop terminal.

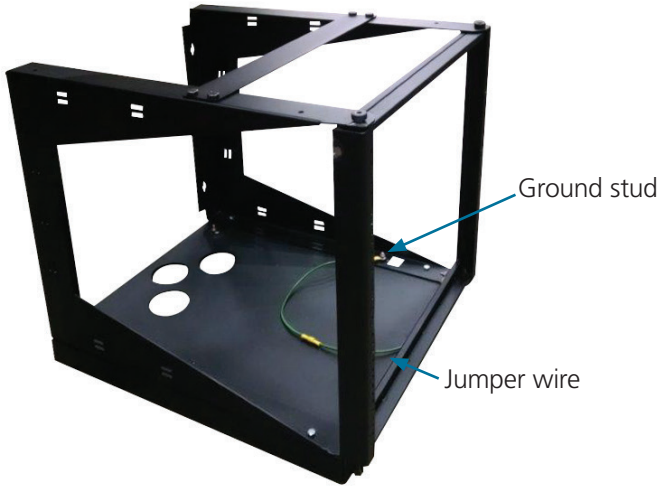

Figure 3-1. Ultra Wallmount Rack with Jumper Wire and Ground Studs.

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